

Appl. No. 10/617,620

Docket No. RTN-141PUS

Amendments to the Specification:

On Page 13, please replace the paragraph beginning on line 11 with the following:

In operation, RF signals are fed differentially from the balun 136 to the signal output line 132 and the signal output line 134, here at a phase difference of 180 degrees. The RF signals are coupled to microstrip circuitry 140a and 140b, respectively and propagate along the microstrip circuitry meeting at signal null point 154 at a phase difference of 180 degrees where the signals are destructively combined to zero at the feed point. The RF signals propagating along the microstrip circuitry 140a and 140b are coupled to the slot 141 and radiate or "are launched" from transition sections 105c and 105d. These signals form a beam, the boresight of which is orthogonal to the cavity plate 12 in the direction away from the cavity 116. The RF signal line 138 is coupled to receive and transmit circuits as is ~~known~~ known in the art using a circulator (not shown) or a transmit/receive switch (not shown).

On Page 20, please replace the paragraph beginning on line 7 with the following:

Referring now to FIG. 4, a unit cell 202 includes a plurality of fin-shaped elements 204a, 204b disposed over a balanced symmetrical pyramidal feed circuit 220. Each pair of radiator elements 204a and 204b is centered over the balanced symmetrical feed 220 which is disposed in an aperture (not visible in Fig. 4) formed in the cavity plate 12 (FIG. 1). The first one of the pair of radiator elements 204a is substantially orthogonal to the second one of the pair of radiator elements 204b. It should be appreciated that no RF connectors are required to couple the signal ~~from to~~ from/to the balanced symmetrical feed circuit 220. The unit cell 202 is disposed above the balanced symmetrical feed 220 which provides a single open cavity. The inside of the cavity walls are denoted as 228.